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| ***Notice of Allowability*** | **Application No.**<br>10/681,767 | **Applicant(s)**<br>ALBAGLI ET AL. | |
| | **Examiner**<br>Faye Polyzos | **Art Unit**<br>2884 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--***

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *submission of 13 October 2005*.

2. ☒ The allowed claim(s) is/are *1-58*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All b) ☐ Some* c) ☐ None of the:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
   (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
   1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
   (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

**Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).**

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

## EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

### *Comment on Submissions*

1. This communication is responsive to submissions 13 October 2005.

### *Allowable Subject Matter*

2. Claims 1-58 are allowed.

3. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 1, 24, and 49, the prior art does not disclose or fairly suggest a solid-state radiation imager, comprising: a substantially transparent material disposed between the pixelated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator material and the second surface of the pixelated array of photosensitive elements, has a thickness in a range of about 1 micron to about 20 microns.

The examiner notes that while it is known in the art of a solid-state radiation imager, comprising: a substantially radiation transparent substrate having a first surface and a second surface from the first surface, wherein the first surface is adapted to receive incident radiation; a scintilllator material having a first surface and a second surface opposite from the first surface; and a pixilated array of photosensitive elements disposed between the substantially radiation transparent substrate and the scintillator material, wherein the pixilated array of photosensitive elements is disposed between the first surface of the scintillator and the second surface of the substantially radiation transparent substrate (see for example Mollov et al – WO 03/071307 A1 – Fig. 3 and

[0037],[0041]-[0043] and [0048]) and a protective cover disposed on the surface of the scintillator material (see for example DeJule et al – US 6,541,774 B1 – Fig. 1 and col. 2, lines 11-18), the prior art does not suggest substantially transparent material disposed between pixelated array of photosensitive elements and scintillator material, of a solid-state radiation imager, comprising a thickness in a range from about 1 micron to about 20 microns.

Regarding independent claim 14, the prior art does not disclose or fairly suggest an x-ray imager, comprising: a substantially transparent material disposed between the pixelated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator material and the second surface of the pixelated array of photosensitive elements, has a thickness in a range of about 1 micron to about 20 microns.

The examiner notes that while it is known in the art of an x-ray imager comprising: a substantially radiation transparent substrate having a first surface and a second surface from the first surface, wherein the first surface is adapted to receive incident radiation; a scintilllator material having a first surface and a second surface opposite from the first surface wherein the scintillator material is adapted to absorb the incident x-rays received by the substantially radiation transparent substrate and generate light; and a pixilated array of photosensitive elements disposed between the substantially radiation transparent substrate and the scintillator material, wherein the pixilated array of photosensitive elements is disposed between the first surface of the scintillator and the second surface of the substrate, and wherein the pixilated array of photosensitive elements is adapted to determine the amount of x-ray energy received by each pixel in the array (See Generally Fig. 3 and [0030]-[0033], [0037], [0041]-[0043] and [0048]), the prior art does not suggest substantially transparent material disposed between pixelated array of photosensitive elements and scintillator material, of a solid-state radiation imager, comprising a thickness in a range from about 1 micron to about 20 microns.

Regarding independent claim 29, the prior art does not disclose or fairly suggest a solid-state radiation imager, comprising: a substantially transparent material disposed between the pixelated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator material and the second surface of the pixelated array of photosensitive elements, has a thickness in a range of about 1 micron to about 20 microns.

The examiner notes that while it is known in the art of a solid-state radiation imager, comprising: a substantially radiation transparent substrate having a first surface and a second surface from the first surface, wherein the first surface is adapted to receive incident radiation; a scintilllator material having a first surface and a second surface opposite from the first surface; and a pixilated array of photosensitive elements disposed between the substantially radiation transparent substrate and the scintillator material, wherein the first surface of the pixilated array of photosensitive elements is disposed on the second surface of the substrate; and a substantially transparent material disposed between the pixilated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator and the second surface of the pixilated array of photosensitive elements (see for example Mollov et al – WO 03/071307 A1 – Fig. 3 and [0037],[0041]-[0043] and [0048]), the prior art does not suggest substantially transparent material disposed between pixelated array of photosensitive elements and scintillator material, of a solid-state radiation imager, comprising a thickness in a range from about 1 micron to about 20 microns.

Regarding independent claim 39, the prior art does not disclose or fairly suggest an x-ray imager, comprising: a substantially transparent material disposed between the pixelated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator material and the second surface of the pixelated array of photosensitive elements, has a thickness in a range of about 1 micron to about 20 microns.

The examiner notes that while it is known in the art of an x-ray imager comprising: an x-ray imager comprising: a substantially radiation transparent substrate having a first surface and a second surface from the first surface, wherein the first surface is adapted to receive incident radiation; a scintilllator material having a first surface and a second surface opposite from the first surface wherein the scintillator material is adapted to absorb the incident x-rays received by the substrate and generate light; and a pixilated array of photosensitive elements disposed between the substantially radiation transparent substrate and the scintillator material, wherein the pixilated array of photosensitive elements is disposed between the first surface of the scintillator and the second surface of the substrate, and wherein the pixilated array of photosensitive elements is adapted to determine the amount of x-ray energy received by each pixel in the array; and a substantially transparent material disposed between the pixelated array of photosensitive elements and the scintillator material, wherein the substantially transparent material is disposed between the first surface of the scintillator material and the second surface of the pixelated array of photosensitive elements from electrons generated in the scintillator material (see for example Mollov et al – WO 03/071307 A1 – Fig. 3 and [0030]-[0033],[0037], [0041]-[0043], [0048]), the prior art does not suggest substantially transparent material disposed between pixelated array of photosensitive elements and scintillator material, of a solid-state radiation imager, comprising a thickness in a range from about 1 micron to about 20 microns.

The remaining claims 2-13, 15-23, 25-28, 30-38, 40-48 and 50-58 are allowable based on their dependency.

***Conclusion***

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Faye Polyzos whose telephone number is 571-272-2447. The examiner can normally be reached on Monday thru Friday from 7:30 AM to 4:00 PM.

5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Porta can be reached on 571-272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

6. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

FP

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